

REMARKS

Reconsideration of this Application is respectfully requested. Upon entry of the foregoing amendments, claims 1-6 and 8-17 are pending in the application, with claims 1, 8 and 13 being the independent claims. Claim 7 has been canceled without prejudice or disclaimer. Support for the subject matter of the amended claims is contained in the application as originally filed. Because the foregoing changes introduce no new matter, their entry is respectfully requested.

Based on the above Amendment and the following Remarks, Applicant respectfully requests that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

Claim Objections

The Examiner has objected to claims 7, 11 and 12 under 37 C.F.R. § 1.75(c) as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant respectfully submits that the objection to claim 7 is rendered moot by the cancellation thereof.

Applicant respectfully traverses the Examiner's objections to claims 11 and 12. Claims 11 and 12 are product by process claims, namely an end cap and a muffler, respectively. Both products are formed by the method set forth in claim 8. As set forth in the *Manual of Patent Examining Procedure*:

A product-by-process claim, which is a product claim that defines the claimed product in terms of the process by which it is made, is proper. *In re Luck*, 476 F.2d 650, 177 USPQ 523 (CCPA 1973); *In re Pilkington*, 411 F.2d 1345, 162 USPQ 145 (CCPA 1969); *In re Steppan*, 394 F.2d 1013, 156 USPQ 143 (CCPA 1967). A claim to a device, apparatus, manufacture, or composition of matter may contain a reference to the process in which it is intended to be used without being objectionable under 35 U.S.C. 112, second paragraph, so long as it is clear that the claim is directed to the product and not the process.

M.P.E.P. § 2173.05(p). Accordingly, Applicant respectfully submits that product-by-process claims 11 and 12 are not improper, and are instead proper under current patent examining procedures.

Rejections under 35 U.S.C. § 102 and 103

Claims 1-7

The Examiner has rejected claims 1-7 under 35 U.S.C. § 102 and 103 as being anticipated by, or unpatentable over one or more of the following references: U.S. Patent No. 6,470,998 to White (“the White patent”) and U.S. Patent No. 5,290,974 to Douglas et al. (“the Douglas patent”). The White patent and the Douglas patent, taken individually or combined, fail to teach or suggest the end cap of the present invention including an end wall and a tubular member defining an inlet/outlet port for a muffler chamber wherein the tubular member is *monolithically formed with the end wall*, and wherein the tubular member is *dimensioned and configured to receive an exhaust pipe*, as is called for by amended claim 1.

The White patent does not disclose such features. Instead, the White patent discloses a modular muffler having flanged open ends 14 and 16 having end adaptor plates 20 and 21 and tubular extensions 23. *See, e.g.* FIG. 1. The White patent fails to teach or suggest the plates and extensions as being monolithically formed, that is, being formed of a single piece of material. Instead, the White patent is silent as to how the adapter plates and the tubular extensions are formed. Conventional wisdom, however, would indicate that the adaptor plates and tubular extensions are manufactured in an otherwise conventional manner, namely that the adapter plates and the tubular extensions are separately formed and subsequently welded or otherwise joined together. A similar conventional manner is described in the *Background of the Invention* of the present invention on pages 1 and 2 and illustrated in FIGS. 1-3 of the present invention.

In fact, the White patent teaches away from the present invention. As shown in FIGS. 31 and 32, tubular extensions 23 and 26 are discrete components as evidenced by the illustrated cross-hatching. In particular, tubular extensions 23 and adaptor plate 21 are not the same component. If they were, tubular extensions 23 and adaptor plate 21 would have consistent

cross-hatching. Similarly, tubular extension 25 and adaptor plate 26 are not the same component. If they were, tubular extension 25 and adaptor plate 26 would also have consistent cross-hatching.

Furthermore, the tubular extensions *extend through* their respective adaptor plates. Thus, it is physically impossible that the tubular extensions and the adaptor plates are stamped from the same blank. *See* new claim 18.

The Douglas patent fails to make up for the deficiencies of White. The Douglas patent discloses a muffler head 44 having a tubular projection 46. *See, e.g.,* FIG. 4. Unlike the present invention, however, Douglas's projection is not *dimensioned and configured to receive an exhaust pipe*. Instead, the Douglas patent teaches away from the present invention in that a nipple 56 is provided to receive an exhaust conduit 62. Nipple 56 has an outer surface 58 that engages the inner surface of projection 46 to form a sealing area therebetween. *See* column 5, lines 30-39. Thus, nipple 56 is separate from projection 46 and and muffler head 44, and is thus a discrete component.

Applicant respectfully submits that the Douglas patent teaches away from the present invention for at least one other reason. As the Douglas patent discloses the use of nipple 56, the Douglas patent inherently acknowledges that Douglas's projection is unsuitable for receiving the exhaust conduit.

In contrast, end cap 30 of the present invention includes a monolithically formed end wall 35 and tubular inlet/outlet pipe 36, whether it is an upstream or down stream exhaust pipe. *See* page 9, paragraph 45; FIG. 4. Such a configuration eliminates the need for welding to attach a pipe to the end wall. *See, e.g.,* page 14. By eliminating welded joints, or any mechanical joint between the end wall and tubular pipe, the present invention provides for a more durable product. *See id.*

For at least these reasons, Applicant respectfully submits that the White patent and the Douglas patent, taken individually or combined, do not anticipate or render obvious independent

claim 1. Applicant submits that claims 2-6 and new claim 18, which depend from claim 1, are allowable over the cited art for at least the same reasons noted above. Applicant submits the rejection of claim 7 is rendered moot by cancellation thereof.

Claims 8-12

The Examiner has rejected claims 8-12 under 35 U.S.C. § 102 and 103 as being anticipated by, or unpatentable over the White and Douglas patents. The White and Douglas patents, taken individually or combined, fail to teach or suggest the method of the present invention including the step of providing a substantially flat metal blank and forming a tubular member and an end wall from the blank thereby *monolithically forming the tubular member and the end wall* from the blank, wherein the tubular member is *dimensioned and configured to receive an exhaust pipe*.

As noted above, the White patent fails to teach or suggest the plates and extensions as being monolithically formed. Instead, the White patent teaches away from the present invention in that tubular extensions 23 and 26 are discrete components, as evidenced by the illustrated cross-hatching of FIGS. 31 and 32.

As also noted above, the Douglas patent fails to make up for the deficiencies of White. Douglas's projection is not *dimensioned and configured to receive an exhaust pipe*. Instead, the Douglas patent also teaches away from the present invention in that projection 46 is provided with a nipple 56 to receive an exhaust conduit 62. Thus, it is a separate component that receives the exhaust conduit. Furthermore, Douglas patent inherently acknowledges that Douglas's projection is unsuitable for receiving the exhaust conduit as is discussed above.

In contrast, the method of the present invention monolithically forms an end wall 35 and tubular inlet/outlet pipe 36. Such a method eliminates the need for welding and other means of joining the pipe to the end wall. *See, e.g., page 14.*

For at least these reasons, Applicant respectfully submits that the White patent and the Douglas patent, taken individually or combined, do not anticipate or render obvious independent

claim 8. Applicant submits that claims 9-12, which depend from claim 8, are allowable over the cited art for at least the same reasons noted above.

Claims 13-17

The Examiner has rejected claims 13-17 under 35 U.S.C. § 102 and 103 as being anticipated by, or unpatentable over the White and Douglas patents. The White patent and the Douglas patent, taken individually or combined, fail to teach or suggest the muffler of the present invention including forward and rearward end caps, each having *monolithically formed tubes and end walls*, and wherein inlet tubes are *dimensioned and configured to receive an exhaust pipe*, as is called for by amended claim 13.

As noted above, the White patent fails to teach or suggest the plates and extensions as being monolithically formed. Instead, the White patent teaches away from the present invention in that tubular extensions 23 and 26 are discrete components, as evidenced by the illustrated cross-hatching of FIGS. 31 and 32.

As also noted above, the Douglas patent fails to make up for the deficiencies of White. Douglas's projection is not *dimensioned and configured to receive an exhaust pipe*. Instead, the Douglas patent also teaches away from the present invention in that projection 46 is provided with a nipple 56 to receive an exhaust conduit 62. Thus, it is a separate component that receives the exhaust conduit. Furthermore, Douglas patent inherently acknowledges that Douglas's projection is unsuitable for receiving the exhaust conduit as is discussed above.

For at least these reasons, Applicant respectfully submits that the White patent and the Douglas patent, taken individually or combined, do not anticipate or render obvious independent claim 13. Applicant submits that claims 14-17 and new claim 19, which depend from claim 13, are allowable over the cited art for at least the same reasons noted above.

CONCLUSION

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner

reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicant believes that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided below.

The Commissioner is hereby authorized to charge any underpayment of fees associated with this communication, including any necessary fees for extension of time or additional claims, and/or credit any overpayment to Deposit Account No. 50-2319 (Order No. 463805-00248; Docket No. A-72192/RBC/VEJ).

Prompt and favorable consideration of this Amendment and Response is respectfully requested.

Respectfully submitted,

DORSEY & WHITNEY LLP

Date: September 19, 2005

By: 

Victor E. Johnson, Reg. No. 41,546

DORSEY & WHITNEY LLP
Suite 1000
555 California Street
San Francisco, California 94104-1513
Telephone: (415) 781-1989 Facsimile: (415) 398-3249